

REMARKS

The Examiner rejected claims 1-3, 6-8, 11-15 and 17-20 under 35 U.S.C. § 102(b) as being anticipated by Keller (U.S. Patent No. 5,330,357). The Examiner rejected claims 4-5, 9-10 and 16 under 35 U.S.C. § 103(a) as being obvious in light of Keller and knowledge within the ordinary level of skill for one in the art.

In response, the Applicant has amended the specification and claims to address the Examiner's rejections. The Applicants believe the amendments made in response to the Examiner's rejections have placed the application in position for allowance.

Specification

With regard to the specification, the Applicant has amended the specification to more fully describe an important aspect of the present invention with regard to the use of the dental floss to deliver the medicine doxycycline hydiate to a periodontal pocket in the patient's gums. As set forth therein, the amended language describes the use of a dental floss strand that is either made out of a dissolvable material or having strand portions that are made out of the dissolvable material, with the strand portions being segmented from the dental floss strand so that the strand portions and the medicine thereon are left in the periodontal pocket. The medicine is released over time and the strand portion dissolves over time.

Claims

With regard to the claims, Applicant is amending the claims to narrow them to the use of the doxycycline hydiate medicine and, with regard to claims 2, 3 and 7, to address the use of the dissolvable dental floss strand or strand portions and the segmented areas on either side thereof that is set forth in the added text of the specification. The method of claim 11 is narrowed to the doxycycline hydiate medicine and the method of using a dental floss strand having strand portions made to be dissolvable and with the doxycycline hydiate thereon, with the medicinal member placed in the

1 periodontal pocket by separating the strand portion from the dental floss strand to allow the
2 doxycycline hyclate to solidify and the strand portion to dissolve in the periodontal pocket.

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4 Prior Art Rejection

5 With regard to the prior art rejections under 35 U.S.C. § 102(b), the Applicant believes
6 that the present amendments to the claims resolves this rejection by incorporating the doxycycline
7 hyclate into the dental floss, which the Examiner previously made the subject of the obviousness
8 rejection. With regard to the prior art rejections under 35 U.S.C. § 103(a), the Applicant respectfully
9 disagrees with the Examiner with regard to the obviousness of utilizing doxycycline hyclate on the
10 dental floss, particularly as amended by the Applicant herein. Specifically, the Applicant does not
11 believe that the use of doxycycline hyclate gel is obvious in the context of a dental floss product. As
12 set forth in the original specification, heretofore the doxycycline hyclate medicine is placed into the
13 periodontal pocket by use of a syringe or like device, where it solidifies so that it may release its
14 medicinal properties over a period of time, such as seven days. Unlike the other medicines set forth
15 in the Keller patent, which are more of a topical nature, the doxycycline hyclate medicine has
16 significantly different properties, namely the ability to solidify on contact with human saliva and then
17 release its medicine over time. Prior to the Applicant's invention, the use of the doxycycline hyclate
18 material is believed to only be applied by an injection or similar process and there is no evidence that
19 one would take a medicine such as this and apply it to a dental floss product to allow the patient to
20 effectively treat himself or herself.

21 With regard to the obviousness rejections for the claims, which are based on Keller,
22 Section 103(a) only denies patentability to those inventions whose "subject matter as a whole would
23 have been obvious at the time the invention was made to a person having ordinary skill in the art to
24 which said subject matter pertains." (35 U.S.C. § 103.) As stated by the court in In re Geiger, 2
25 USPQ2d 1276 (CAFC 1987), "[o]bviousness cannot be established by combining the teachings of the
26 prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting

1 the combination." (In re Geiger, 2 USPQ2d at 1278.) The motivation or suggestion to combine
2 references must exist, otherwise the determination of obviousness involves nothing more "than
3 indiscriminately combining prior art." (Micro Chemical Inc. v. Great Plains Chemical Co., 41
4 USPQ2d 1238, 1244 (CAFC 1997).) In In re Fritch, 23 USPQ2d 1780 (CAFC 1992), the Federal
5 Circuit stated the following:

6 In proceedings before the Patent and Trademark Office, the Examiner bears the burden of
7 establishing a *prima facie* case of obviousness based upon the prior art. The Examiner can
8 satisfy this burden only by showing some objective teaching in the prior art or that knowledge
generally available to one of ordinary skill in the art would lead that individual to combine the
relevant teachings of the references.

9 Obviousness cannot be established by combining the teachings of the prior art to produce the
10 claimed invention, absent some teaching or suggestion supporting the combination. Under
11 section 103, teachings of references can be combined *only* if there is some suggestion or
12 incentive to do so. Although couched in terms of combining teachings found in the prior art,
13 the same inquiry must be carried out in the context of a purported obvious "modification" of
14 the prior art. The mere fact that the prior art may be modified in the manner suggested by the
15 Examiner does not make the modification obvious unless the prior art suggested the desirability
16 of the modification.

17 Here, the Examiner relied upon hindsight to arrive at the determination of obviousness. It is
18 impermissible to use the claimed invention as an instruction manual or "template" to piece
19 together the teachings of the prior art so that the claimed invention is rendered obvious. This
20 court has previously stated that one cannot use hindsight reconstruction to pick and choose
21 among isolated disclosures in the prior art to deprecate the claimed invention. (In re Fritch, 23
22 USPQ2d at 1783-84 (internal quotes and citations removed).)

23 Respectfully, nothing suggests combining the teachings of Keller and any knowledge
24 commonly known in the art to arrive at Applicant's invention. Nothing in either the Keller patent or
25 any knowledge generally available to one of ordinary skill in the art, compels, teaches, suggests or
26 even offers any incentive such that an individual wanting to treat periodontal disease with doxycycline
27 hydyclate would apply that medicine to a medicinal member on a dental floss strand to provide a dental
floss that is configured as Applicant's invention. (See In re Fritch, 23 USPQ2d at 1783; In re Geiger,
2 USPQ2d at 1278.)

With regard to the claims directed to the version of Applicant's invention where the
dental floss strand and/or the strand portions are made from a dissolvable material and the strand
portions are separatable from the dental floss strand by segment areas to allow the doxycycline hydyclate

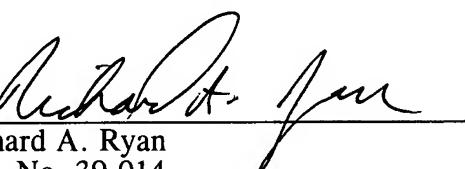
1 to be placed in the periodontal pocket where the medicine is released over time and the strand portions
2 dissolve over time, Applicant believes this is also not disclosed, taught or suggested by the prior art,
3 including the Keller patent.

4 A total of three (3) independent claims and eighteen (18) claims were included in the
5 original application. Seven (7) claims were cancelled and four (4) claims were added, for a total of
6 fifteen (15) claims. Therefore, no additional fees for claims are believed due.

7 In view of the foregoing, it is submitted that this application is in condition for
8 allowance. Reconsideration of the rejections and objections in light of this Amendment is requested.
9 Allowance of Claims 1-3, 5-7, 9-11 and 17-22 is solicited.

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12 Respectfully Submitted,

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